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## IN THE CLAIMS

Please cancel claim 1-18 without disclaimer or prejudices as to the subject matter of claims 1-18.

Please add claims 19-36 as follows:

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19. (NEW) A method of controlling power to a high-intensity-discharge lamp, said method comprising:

determining a voltage across the lamp and a current through the lamp; approximating a power to the lamp based on a sum of the lamp voltage and the lamp current; and

regulating power to the lamp based on a comparison of the approximated lamp power and a predetermined value.

20. (NEW) The method of claim/19, wherein a determination of the lamp voltage and the lamp current includes:

scaling the lamp voltage; and converting the lamp current into a representative voltage.

21. (NEW) The method of claim 20, wherein an approximation of the lamp voltage includes:

summing the scaled lamp voltage and the representative voltage.

22. (NEW) The method of claim 19, wherein a comparison of the approximated lamp power and the predetermined value includes:

determining/whether the approximated lamp power is greater or less than the predetermined value.

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23. (NEW) A system of controlling power to a high-intensity-discharge lamp, said system comprising:

a voltage sensor for determining a voltage across the lamp;

a current sensor for determining a current through the lamp; and

a control circuit operatively connected to said current sensor and said

voltage sensor, said control circuit for approximating a lamp power based a sum of the lamp voltage and the lamp current, comparing the approximated lamp power against a desired level, and regulating the power to the lamp based on the comparison.

24. (NEW) The system of claim 23, wherein said current sensor includes a resistor connected in series with the lamp.

25. (NEW) The system of claim 23, further comprising:

a signal conditioning circuit for scaling and filtering an output of said ()

current sensor.

26. (NEW) The system of claim 23, wherein said voltage sensor includes 100 a voltage divider network shunting the lamp.

27. (NEW) The system of claim 26, wherein said voltage divider includes a voltage-limiting network to reduce a starting voltage effect on the power approximation.

28. (NEW) The system of claim 23, wherein said control circuit includes:
a summing circuit for approximating the power supplied to the lamp by adding the output from said voltage sensor and a representative voltage determined from an output of said current sensor.

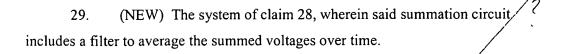
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- 30. (NEW) The system of claim 28, wherein said summation circuit includes a plurality of rectifiers connected to allow the absolute value of the representative voltage to be added to the absolute value of the vóltage sensor output.
- (NEW) The system of claim 23, wherein, said control circuit includes a 31. voltage reference signal generator for comparing against the lamp power.
- 32. (NEW) The system of claim 31, wherein said reference signal generator produces a saw tooth waveform synchronized with the sensed current and twice the frequency of the sensed current.

NEW) The system of claim 23, wherein said control circuit includes a current limiting component shunted by an electronic switch in series with the lamp.

34. (NEW) The system of claim 23, wherein said control circuit includes a comparator circuit for comparing voltage representing the lamp power to a reference.

103 35. (NEW) The system of claim 34, wherein said comparator circuit controls an electronic switch through an electrically isolated coupler.

(NEW) A system for controlling power to a high-intensity-discharge lamp said system comprising:

means for determining a voltage across the lamp and a current through

means for approximating a power to the lamp based on a sum of the lamp voltage and the lamp current; and

means-for-regulating the power to the lamp based on a comparison of the approximated lamp power to a predetermined value.

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the lamp